Claim Amendments

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-6. (Canceled)

Claim 7. (Currently Amended) A process for producing light olefins, comprising:

catalytically cracking a hydrocarbon feed in the presence of a crystalline aluminosilicate zeolite catalyst having a SiO_2/Al_2O_3 molar ratio ranging from 50 to 300 carrying a rare earth element in an amount ranging from 0.4 to 20 relative to the aluminum of the zeolite on an atomic ratio basis in a fluidized bed-type reactor which permits continuous regeneration of the catalyst ~~and which is of a fluidized bed type, a moving bed type, or a transfer line reaction type~~ under reaction conditions involving a reaction temperature ranging from 500 to 700° C, a reaction pressure ranging from 50 to 500 kPa, a steam to hydrocarbon mass ratio ranging from 0.1 to 1, a catalyst to hydrocarbon mass ratio ranging from 18 to 40, and a contact time ranging from 0.1 to 10 seconds.

Claim 8. (Previously Presented) The process for producing light olefins as defined in claim 7, wherein the rare earth element is at least one member selected from the group consisting of lanthanum, cerium, praseodymium, neodymium, samarium, gadolinium, and dysprosium.

Claim 9. (Previously Presented) The process for producing light olefins as defined in claim 7, wherein the rare earth element is carried in an amount ranging from 0.6 to 5 relative to aluminum of the zeolite on an atomic ratio basis.

Claim 10. (Previously Presented) The process for producing light olefins as defined in claim 9, wherein the rare earth element is carried in an amount ranging from 1 to 3 relative to aluminum of the zeolite on an atomic ratio basis.

Claims 11 - 13. (Canceled)

Claim 14. (Previously Presented) The process for producing light olefins as defined in claim 7, wherein the steam to hydrocarbon mass ratio ranges from 0.2 to 0.5.

Claim 15. (Previously Presented) The process for producing light olefins as defined in claim 7, wherein the contact time ranges from 0.5 to 5 seconds.

Claim 16. (Previously Presented) The process for producing light olefins as defined in claim 7, wherein the hydrocarbon feed comprises a paraffin having from 2 to 30 carbon atoms.

Claim 17. (Previously Presented) The process for producing light olefins as defined in claim 16, wherein the hydrocarbon feed is ethane, propane, butane, pentane, hexane or a naphtha or gas oil fraction.

Claim 18. (Previously Presented) The process for producing light olefins as defined in claim 7, wherein the catalyst is a high silica content zeolite ZSM-5 or ZSM-11 catalyst.